

AMENDMENT UNDER 37 C.F.R. § 1.111
USSN: 09/775,618

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for determining a moving status of a portable telephone, comprising ~~the steps of~~:

a) receiving a call setup signal for an incoming call from a base station using a designated radio channel;

AI b) measuring a reception signal strength on a sequentially selected one of N radio channels that are previously designated by the base station at a timing other than a communication timing of the designated radio channel, where N is an integer greater than 1; and

c) determining a moving status of the portable telephone based on measured reception signal strengths.

2. (currently amended): The method according to claim 1, wherein ~~the step~~ (c) comprises ~~the steps of~~:

c.1) repeating ~~the step~~ (b) for the N radio channels M times, where M is an integer greater than 1;

c.2) calculating a variation in reception signal strength between a previously measured reception signal strength and a currently measured reception signal strength for a sequentially selected one of the N radio channels; and

c.3) determining a moving status of the portable telephone based on accumulated variation over M sets of N reception signal strengths.

3. (currently amended): The method according to claim 2, wherein ~~the step~~-(c.3) comprises ~~the steps of~~:

when the accumulated variation is smaller than a predetermined threshold, determining that the portable telephone is not moving at high speeds; and

AJ when the accumulated variation is not smaller than a predetermined threshold, determining that the portable telephone is moving at high speeds.

4. (currently amended): The method according to claim 1, wherein ~~the step~~-(c) comprises ~~the steps of~~:

c.1) repeating ~~the step~~-(b) for the N radio channels M times, where M is an integer greater than 1;

c.2) selecting at least one radio channel from the N radio channels, said at least one radio channel having a reception signal strength greater than a minimum permissible level;

c.3) calculating a variation in reception signal strength between a previously measured reception signal strength and a currently measured reception signal strength for said at least one radio channel;

c.4) calculating an average variation by dividing accumulated variation by M; and

c.5) determining a moving status of the portable telephone based on the average variation.

5. (currently amended): The method according to claim 4, wherein ~~the step~~ (c.5) comprises ~~the steps of~~:

when the average variation is smaller than a predetermined threshold, determining that the portable telephone is not moving at high speeds; and

A / when the average variation is not smaller than a predetermined threshold, determining that the portable telephone is moving at high speeds.

6. (original): The method according to claim 1, wherein the portable telephone communicates with the base station in TDMA (time division multiple access) scheme, wherein a next timing for transmission and reception is relatively determined by a current timing for transmission and reception.

7. (currently amended): The method according to claim 6, wherein ~~the step~~ (b) comprises ~~the steps of~~:

b.1) switching a communication channel from the designated radio channel to a sequentially selected radio channel of the N radio channels at an idle timing between adjacent timings for transmission and reception of the designated radio channel;

AMENDMENT UNDER 37 C.F.R. § 1.111
USSN: 09/775,618

b.2) measuring a reception signal strength on the sequentially selected radio channel;
and

b.3) switching a communication channel from the sequentially selected radio channel
back to the designated radio channel after a lapse of the idle time.

8. (original): A portable telephone comprising:

a transceiver for receiving and transmitting radio signals from and to a base station

A / using a radio channel designated by the base station;

a reception level measuring circuit for measuring a reception signal intensity on a
currently selected radio channel; and

a moving status detector for detecting a moving status of the portable telephone based
on measured reception signal strengths, each of which is measured on a sequentially selected one
of N neighboring radio channels that are previously designated by the base station at a timing
other than a communication timing of the designated radio channel in response to receipt of a
call setup signal for an incoming call from the base station using the designated radio channel.

9. (original): The portable telephone according to claim 8, wherein the moving status
detector repeats measurement of reception signal strengths for the N radio channels M times,
calculates a variation in reception signal strength between a previously measured reception signal
strength and a currently measured reception signal strength for a sequentially selected one of the

AMENDMENT UNDER 37 C.F.R. § 1.111
USSN: 09/775,618

N radio channels, and detects a moving status of the portable telephone based on accumulated variation over M sets of N reception signal strengths.

A1 10. (original): The portable telephone according to claim 9, wherein when the accumulated variation is smaller than a predetermined threshold, the moving status detector determines that the portable telephone is not moving at high speeds and, when the accumulated variation is not smaller than a predetermined threshold, the moving status detector determines that the portable telephone is moving at high speeds.

11. (original): The portable telephone according to claim 8, wherein the moving status detector repeats measurement of reception signal strengths for the N radio channels M times, selects at least one radio channel from the N radio channels, said at least one radio channel having a reception signal strength greater than a minimum permissible level, calculates a variation in reception signal strength between a previously measured reception signal strength and a currently measured reception signal strength for said at least one radio channel, calculates an average variation by dividing accumulated variation by M, and determines a moving status of the portable telephone based on the average variation.

12. (original): The portable telephone according to claim 11, wherein when the average variation is smaller than a predetermined threshold, the moving status detector determines that the portable telephone is not moving at high speeds and, when the average variation is not smaller than a predetermined threshold, the moving status detector determines that the portable telephone is moving at high speeds.

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13. (original): The portable telephone according to claim 8, further comprising:
a controller controlling the transceiver so that the portable telephone communicates with the base station in TDMA (time division multiple access) scheme, wherein a next timing for transmission and reception is relatively determined by a current timing for transmission and reception.

14. (original): The portable telephone according to claim 13, wherein the controller switches a communication channel from the designated radio channel to a sequentially selected radio channel of the N radio channels at an idle timing between adjacent timings for transmission and reception of the designated radio channel and, after a lapse of the idle time used to measure a reception signal strength on the sequentially selected radio channel, and switches a communication channel from the sequentially selected radio channel back to the designated radio channel.

15. (original): The portable telephone according to claim 10, further comprising:

AMENDMENT UNDER 37 C.F.R. § 1.111
USSN: 09/775,618

a display circuit for displaying necessary information on screen;
an alert circuit for alerting a user to occurrence of an incoming call;
a controller controlling the display circuit and the alert circuit such that
when the moving status detector determines that the portable telephone is not moving at
high speeds, both the display circuit and the alert circuit are activated, and
when the moving status detector determines that the portable telephone is moving at
high speeds, the alert circuit is not activated but the display.

16. (original): The portable telephone according to claim 12, further comprising:

a display circuit for displaying necessary information on screen;
an alert circuit for alerting a user to occurrence of an incoming call;
a controller controlling the display circuit and the alert circuit such that
when the moving status detector determines that the portable telephone is not moving at
high speeds, both the display circuit and the alert circuit are activated, and
when the moving status detector determines that the portable telephone is moving at
high speeds, the alert circuit is not activated but the display.

17. (new): A method for determining a moving status of a portable telephone,
comprising:

a) receiving a call setup signal for an incoming call from a base station using a
designated radio channel;

AMENDMENT UNDER 37 C.F.R. § 1.111
USSN: 09/775,618

b) measuring a reception signal strength on a sequentially selected one of N radio channels that are previously designated by the base station at a timing other than a communication timing of the designated radio channel, where N is an integer greater than 1 and the selected one of N radio stations is channel other than the designated radio channel; and

c) determining a moving status of the portable telephone based on measured reception signal strengths.

18. (new): A portable telephone comprising:

a transceiver for receiving and transmitting radio signals from and to a base station using a radio channel designated by the base station;

a reception level measuring circuit for measuring a reception signal intensity on a currently selected radio channel; and

a moving status detector for detecting a moving status of the portable telephone based on measured reception signal strengths, each of which is measured on a sequentially selected one of N neighboring radio channels that are previously designated by the base station at a timing other than a communication timing of the designated radio channel in response to receipt of a call setup signal for an incoming call from the base station using the designated radio channel, where the selected one of N neighboring radio stations is channel other than the radio channel designated by the base station.